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ABSTRACT

At Santa Fe Community College, the development of a biology course and departmental final examination was accomplished in the following stages: (1) faculty reached consensus on course content, major objectives and sub-objectives; (2) faculty contributed final examination questions corresponding to the 10 major course topics to a pool for review and, pending faculty approval, to a computerized test bank; (3) a computer program was used in the selection of items from the test bank, in coding the items for various purposes, and in inputting essay exam answers; (4) a single departmental final examination was generated from the bank of questions; (5) exam results were analyzed to assess test reliability and the difficulty of each item; (6) information from the item analysis was used to edit or delete poor questions; and (7) faculty received a breakdown of test results providing mean student scores. The other core courses in Santa Fe's general education program underwent a similar development process, leading to the following conclusions: testing systems should be developed along with the curriculum rather than being externally imposed; faculty acceptance of the use of computers in instruction is important; and item analyses should be shared with faculty. The bulk of the report consists of instructions for faculty on using the testing system and samples of exam analyses. (LAL)

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COMPUTERIZED TESTING AND FEEDBACK FOR FACULTY AND CURRICULUM DEVELOPMENT

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Presented at the National Conference of the League for Innovation in the Community College, Newport Beach, California, October 9-12, 1983.

JC 830 474

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Overall Plan

COMPUTERIZED TESTING AND FEEDBACK FOR FACULTY AND CURRICULUM DEVELOPMENT

A computerized testing system at Santa Fe Community College has yielded many benefits in the area of curriculum and faculty development. The concept of test generation through a main-frame computer is certainly not new. The system at Santa Fe Community College has, however, incorporated the ease and security of computer test generation into a larger context of instructional quality improvement through feedback on the test items and feedback to the faculty on student performance. Such information has already lead to some very positive curriculum and faculty development.

With the changing mood of the nation in the late 70's, Santa Fe Community College reevaluated its general education program with a commitment to improve the content and quality of the Associate in Arts curriculum. The new curriculum had as the core a group of eight which we later expanded to ten "key" courses. The course in each of the main academic disciplines focused on the basic information critical to that area. The content of such a course, in the opinion of that area's faculty, was material of which all students should have some knowledge. This made up the heart of that core course. All sections of that course, no matter who taught it, would contain that common basic content. The agreement on the basic common content lead to the adoption of a single text. There was a basic outline agreed upon and, where applicable, a common laboratory experience. As long as this basic content was taught, each faculty member felt free to expand or add other materials and choose the style or structure of instruction. Finally, each course had a common

departmental final exam. To date, five such exams are stored in our main-frame computer (IBM 4331).

For clarity, the biology course and departmental final exam will be described in this paper. The other courses underwent a similar genesis. The development of the course and the exam was accomplished in the following stages:

1. Course Content Development
2. Final Exam Development
3. Test Bank Program
4. Administration and Grading of the Exam
5. Analysis of the Results
6. Item Analysis
7. Feedback to Faculty of Test Analysis

COURSE DEVELOPMENT

This process consisted of the faculty reaching a consensus on the content, major objectives and subobjectives. This course (BSC 1010) is a one semester, four credit hour course with a mandatory laboratory. The course content was developed by the entire biology faculty, who come from varied backgrounds and specialties. Actually, the task of course development was not very difficult. The general principles are taught in most colleges and universities, and our college had a general biology course which formed the basis for this new course. In 1979, a course outline which contained a detailed topical outline, objectives, and subobjectives was finalized. The faculty as a unit wrote their own laboratory manual to follow the course content. The course is now taught by every member of the biology faculty, and is listed as the "key" course in the department.

FINAL EXAM DEVELOPMENT

In the fall of 1981, a common final exam was instituted. The biology department produced their final exam by having each faculty member contribute many questions to a pool. These question items were then sorted into the ten categories corresponding to the ten major topics in the course outline. The items were rotated among the faculty who had editing and veto privileges; at the end of the process, the approved items were placed in the computerized test bank.

TEST BANK PROGRAM --

The Dean for Instruction and the Director of the Computer Services Center are the only people who have master entry to the test program. All departments and faculty must go through the Dean of Instruction for the initial entry. This provides excellent security for the bank itself. The passwords are changed frequently for added security. Once he has gained access to the test bank, each department chairman can set up a file for the departmental final with his own password.

When an item is entered into the computer, a course and section number is assigned. In the case of a common departmental final, only one section number is assigned. In the future when individual faculty begin to use this program, they can enter their own file number under this heading. If the item is multiple-choice or true-false, the answer is entered as well. Several codes may be assigned to each item for future use. For example, each item can be assigned a number which will correspond to the major topic in the outline. As the item analysis is completed, a number can be assigned to designate the difficulty level and the discrimination level. In the not-too-distant future, it will be possible to randomly generate an exam with a specified number of items

from selected topics and with certain difficulty and discrimination levels.

In addition to objective items, this program will accept essay questions. One can also enter a passage or leave a blank space which can later be filled in with a diagram on hard copy before reproduction, and several questions can be asked in sequence all pertaining to the diagram or passage.

The browse code gives the user information on which test banks already exist and the number of items in each bank. Finally, there is a password information control which refers the inquirer to the Dean at a given extension for information or assistance.

ADMINISTRATION OF THE EXAM

The final exam was generated from that bank of questions. In order to ensure good coverage of the course material, each major topic in the course outline was assigned a weight and the number of items chosen for the actual exam (final) reflected that weight. Each major objective and subobjective was tested. The exam was produced in five forms and each section of the course administered all five forms. Each form had the same actual items, but they were scrambled for security purposes. The answer sheets were optically scanned and the faculty received the results for their students the next day. The data were also placed on tape for further analysis.

ANALYSIS OF THE RESULTS

The data on tape were then analyzed to obtain the necessary statistical information.

Table 1 shows the information for the BSC 1010 exam. This test was given four times during three major semesters and one summer semester. The level of reliability was consistently high. This was in part due to the large number of items on the exam itself.

TABLE 1

Test Statistics*

	FALL 1981	WINTER 1982	SUMMER 1982	FALL 1982
Mean	79	76	84	74
Median	80	76	85	75
Mode	80	76	77	71
Number of Students	474	453	144	506
Kuder-Richardson 20	0.91	0.93	0.94	0.92
Standard Deviation	15.6	17.3	18.1	16.8
Standard Error of Measurement	4.7	4.6	4.5	4.75
Total Number of Items on Exam	120	120	120	120

*All scores and statistics are based on raw scores.

By far the most useful information was the item analysis (Table 2). The analysis gave the item number, the frequency distribution among the answer and distractors, the item difficulty, item discrimination, and the point biserial correlation.

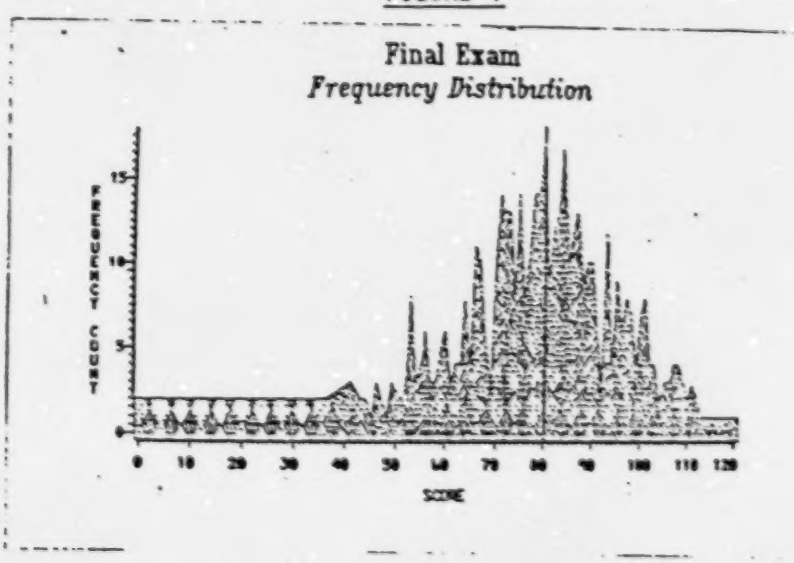
TABLE 2

Item Analysis

ITEM NUMBER	ITEM RESPONSES 1	2	3	4	5	ITEM DIFFICULTY	ITEM DISCRIMINATION	POINT BISERIAL CORRELATION
1	10	12	54+	23	0	0.54	0.34	0.25
2	40+	19	22	17	2	0.40	0.44	0.35
3	6	29	4	38+	23	0.38	0.36	0.27
4	2	1	77+	3	17	0.77	0.35	0.37
5	6	7	4	5	78+	0.78	0.33	0.30
1	65+	10	8	2	16	0.65	0.44	0.39
2	4	2	9	78+	6	0.78	0.35	0.36
3	5	73+	5	13	4	0.73	0.48	0.47
4	8	25	63+	3	0	0.63	0.37	0.28
5	20	5	7	68+	1	0.68	0.55	0.48

Over several testings, a normal distribution of grades were obtained (Figure 1).

FIGURE 1



FEEDBACK ON THE TEST

The information from such analysis was then used to edit or delete poor items. The information for each item was then placed in the test bank (Specifics of the Test Bank). The overall analysis was shared with all the biology faculty who had the task of editing the items in their bank. This process is still occurring. Within a year there will be nearly one thousand items in this particular bank. This feedback has improved the quality of the exam and, additionally, it has helped the faculty assess their teaching and their ability to write good exams. Such feedback, if given without any strings, can be very valuable information which most faculty will welcome.

FEEDBACK TO THE FACULTY

In addition to the feedback mentioned above, the faculty received a second type of feedback that broke down the test results to give mean scores for each faculty's students in each of the ten major topics covered on the exam (Figure 2 and 3).

FIGURE 2

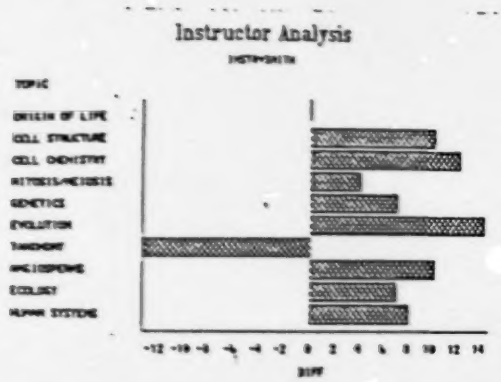
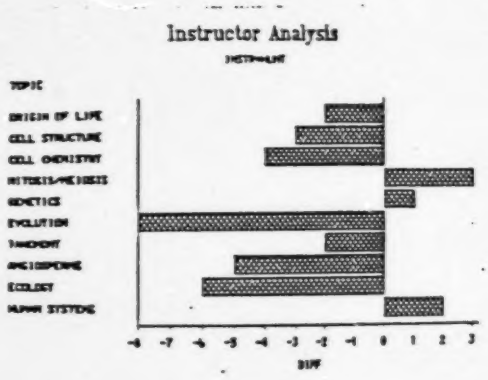


FIGURE 3



These were reported as the differences from the overall population's means for each of the ten major topics. As shown in figures 2 and 3, the population's means were set at zero and the differences shown as plus or minus means. In figure 2, instructor Smith's students scored 14 points above the population's mean in Evolution, but scored 13 points below in Taxonomy. This could be a huge help to any instructor in planning teaching strategies or changes. When the results were given, the faculty were told not to take the analysis too lightly or too seriously, but to evaluate it over a period of time. After all, one cannot make an accurate judgment until several such feedbacks have been given. The faculty can use this information as a component in their course development and revision.

CONCLUSION

The use of computers in instruction can be a powerful tool. The development of its use, however, must be carefully correlated to the actual needs of the faculty and students. For a system to succeed, it should have the following components:

1. A system should be developed along with the curriculum and become an integral part of it rather than being forced to fit.

2. The acceptance by the faculty of such a system is very important. It is crucial, therefore, that they be involved from the very beginning of the process. Many faculty have a fear of computers. It is important to introduce computer aided instruction in an attractive, useful way.

3. Item analysis and other studies, made possible by this system, should be shared with the faculty, and their feedback and ideas incorporated whenever possible.

4. The development aspects of any information generated should be

confidential and used very carefully. The faculty must be kept closely informed of the results and the intended uses of such information.

Santa Fe Community College has a great deal of work yet to do on this system. It has, however, won wide faculty and administrative approval. In time, this system could be of great benefit in the teaching and management at this college.

REFERENCES

Ebel, Robert L., Essentials of Educational Measurement, 3rd edition, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1979.

Garrett, Henry E., Statistics in Psychology and Education, Longmans, Green and Co., New York, 1958.

Mehrens, William A. and Lehmann, Irvin J., Standardized Tests in Education, Holt, Rinehart and Winston, Inc., New York, 1969.

*** FACULTY TEST SYSTEM ***
*** GENERAL INFORMATION ***

The Faculty Test System is used to assist the instructor in creating, printing and scoring tests. The system is protected by two passwords. The first "System" password is supplied by Computer Services and provides initial access to the system. The second "User" password is supplied by the user and provides access to the questions for a particular course and section. The system consists of a question bank, a facility to create, display and print tests, and a facility to score and analyze the tests.

The question bank may contain up to 999 questions for each course and section. The questions for a test can be selected manually by individual question numbers or randomly by the computer. The questions selected may then be printed in the order requested or with either the questions or answers rearranged. Each test can have up to nine formats with either the questions or answers rearranged randomly.

Test scoring and analysis is provided through the use of an Optical Scanner and general purpose answer sheets. Tests submitted for scoring must be brought to Computer Services and given directly to supervisory personnel of the Operations Staff in the Computer Room. The tests are scanned creating a computer tape which is used to transfer the data to the computer for scoring and analysis. The answers for the test are stored for scoring purposes when the tests are printed. The answers for scoring are protected by the "User" password. Integrity of the answers is maintained because only the faculty member and the computer have access to the answers. Manually prepared tests may be scored and analyzed by the computer if the answers are manually keyed into the computer using one of the faculty test screens. The test scores, analysis reports, and the answer sheets will be kept in a lock box until picked up by faculty members.

General Information

*** ACCESS TO THE SYSTEM ***

To use the Faculty Test system, the faculty member must have access to a terminal. Submit a User Request form to Computer Services requesting a password giving access to the Faculty Test system. Faculty should contact the Computer Services Department if they have any questions about access to the Faculty Test System.

Computer terminal screens are used to create, and maintain questions, tests, and keys. Transaction "FTMU" (Attachment "A") provides a menu giving access to all of the Faculty Test screens.

1. Clear your screen by pressing both "ALT" and "CLEAR" at the same time.
2. Key "CSSN" and press ENTER.
3. Key your system password and press ENTER.
4. Clear your screen by pressing both "ALT" and "CLEAR" at the same time.
5. Key "FTMU" and press ENTER.
6. Key your selection and press ENTER.

A series of HELP sessions are provided describing the screens available in the Faculty Test system and giving instructions for their use. The HELP sessions should be read before using the system. The first screen of the HELP sessions (attachment "B") lists the information available. The HELP sessions may be accessed by keying selection number ten on the Faculty Test Menu Screen.

*** PRINTING TESTS ***

Tests are created using the Faculty Test Print screen which is available on the Faculty Test menu. The screen is protected by the faculty member's "User" Password. Tests are chosen for printing according to the print date which is provided by the user. Supervisory personnel of the Computer Operations staff print tests at 3:30 p.m. each day. The tests are then put in a lock box and may be picked by faculty the next day.

Up to nine different versions of the same test may be printed by rearranging either the questions or the answers. Two copies will be printed for each version of each test. The first copy shows the answers, teachers comments and the original question bank number. The second copy is for the students and must be reproduced by the faculty member. An answer key and question cross reference for the different test versions is printed at the end of the tests.

Each version of a test is assigned a unique test number. The first or smallest number is referred to as the "Master Test Number". The Master Number is used to obtain the Master Answer Key that was created when the test was printed. It is also used to identify the test when it is submitted for scoring and analysis. All other versions of the test will cross reference to the Master Test and Answer key by question numbers. When the tests are analyzed the computer will rearrange the student responses to be in the same order as the questions on the master test.

* GENERAL PURPOSE ANSWER SHEETS *

Scoring and analysis for tests is available using an optical scanner. Notice on the answer sheet that there can be a maximum of five answers per question for questions to be scored by the optical scanner. To use this facility faculty members must use the correct answer sheet (Attachment "C"). Faculty can pick up answer sheets from their coordinator, who can obtain them from Computer Services. Tests to be scanned by Computer Services should be submitted in a manila envelope in order to protect the answer sheets and ensure quality reporting.

SPECIAL INSTRUCTIONS FOR ANSWER SHEETS:

1. Special Codes: Used for the test number. The test number is found at the upper right hand corner of the test. Include leading zeros to make a 6 digit number. Example: 000234

   Faculty should check the answer sheets as they are turned in. Answer sheets with incorrect test numbers cannot be graded.

2. Do not bend or fold the answer sheets. Damaged answer sheets cannot be graded.

3. Identification Number: Used for the social security number. There should be no blank spaces.

4. Birth Date: Used for the Section Number. The Section Number should be put in the first three boxes.

5. Sex: This field is used to authorize posting of students grades by Social Security number. The students may authorize posting of their grades by filling in either Male or Female.

* TEST SCORING AND ANALYSIS *

Tests using the answer sheets above may be submitted to Computer Services to be run on the Optical Scanner. Faculty members must use the form provided (Attachment "D"). Carefully read and follow all directions provided on the form.

When tests are printed by the faculty test system a key will be generated for the master test. All other versions or formats of the test will cross reference to the master test by question number. There is one exception: Tests with the answers rearranged will not generate a key, and cannot be scored by the system.

Tests that are not printed by the Faculty Test System may still be submitted to Computer Services. Prior to giving the test, the faculty member must manually build the key on the Faculty Test System. This is accomplished by using the Test Key Cross Reference screen. The screen is available on the Faculty Test Menu or you may use the transaction "FTXM".

After answer sheets are scanned, the tape produced is used to score and analyze the test. Ten reports are produced:

1. Optical Scanner Test Tape Error Report - List of answer sheets with incorrect test numbers. The system cannot score answer sheets with incorrect test numbers. More than five incorrect test numbers will cancel the run. Any reports produced will be incorrect.

2. Teachers Test Report - List showing the answer key, the students and scores and the answers given by the student to each question, for each section. The student answers are rearranged to be in the same order as the master test and answer key.

3. Authorized Test Scores by Social Security Number - List of student scores for each section by Social Security Number for students who authorized posting their scores.

4. Frequency Distribution - A frequency distribution of scores for each section.

TEST ANALYSIS REPORT:

5. General Statistics.
   Notes: Kuder-Richardson 20 Correlation - Measures the reliability of the test. A high number (nearing 1.0) means that similar test results could be expected if the test was given to a similar sample of students.

6. Frequency Distribution of Scores - A frequency distribution of scores for the test as a whole.
   Notes: Z Score - shows the variance of scores from the mean in an "Easy To See" format.

7. Item Analysis By Totals - Item analysis for each question by raw scores.

   Notes: Item Difficulty - Percentage figure showing the number of correct responses over the number of students.

   Item Discrimination - Percentage figure for a question showing the difference in scores between the high and low 27% of students.

   Point Biserial Correlation - Measure of overall item discrimination.

8. Item Analysis by Percentages - Item analysis for each question by percentages.

9. Student Scores by Name - Student scores for the test as a whole.

10. Group Score Analysis by Section - A graph of scores for each section for each question group compared with the overall mean group scores for the test as a whole. No results for this report will be shown if the questions are not assigned group codes.

******** FACULTY TEST BANK MENU ********

THE FOLLOWING TASKS ARE AVAILABLE UNDER
THE COMPUTERIZED FACULTY TEST BANK SYSTEM:

1. ADD, CHANGE, OR DELETE QUESTIONS
2. BROWSE QUESTION FILE
3. SELECT QUESTIONS FOR TEST
4. COURSE AND SECTION BROWSE
5. PASSWORD INFORMATION
6. RENAME, RENUMBER OR COMBINE COURSES
7. TEST KEY CROSS REFERENCE MAINTENANCE
8. DISPLAY TEST QUESTIONS
9. DISPLAY PREVIOUS TEST SELECTIONS
10. HELP SESSIONS

==> KEY TASK NUMBER DESIRED:

SECT: 001

Faculty Test Help Sections

HELP 010-012	General Operator Information
HELP 020-027	Add, change, or Delete Questions
HELP 030-034	Select Questions for a Test
HELP 040	Password Inquiry
HELP 050	Display Courses Included in the System
HELP 055	Display questions for a course
HELP 060	What Screens are Available
HELP 070	How to Modify a Help Section
HELP 080-083	Renumber Test Questions,Rename a Course and section, Combine a Course & Section
HELP 085	Change Test Key Cross Reference File
HELP 086-087	Creating a Test Key Cross Reference
HELP 090	Display Test Questions
HELP 095	Display previous Test Selections

PRESS ENTER TO CONTINUE OR KEY IN SECTION NO. PF1 RETURNS SECT. 001

ATTACHMENT "C"

** DIRECTIONS FOR ANSWER SHEETS **

1. Listen to all directions before starting on the exam.

2. Fill out side 2 of the answer sheet as directed:

   a. Special Codes - Write your test number in the boxes provided. The test number is found at the upper right hand corner of the test. Include leading zeros to make a 6-digit number.
      Example: 000234
      Fill in the corresponding circle below each number of your test.

      ** Note: Answer sheets with incorrect test numbers cannot be graded.

   b. Name - Print your name in the boxes provided -- Last name first - Leave a space between your last name and your first name. Fill in the corresponding circle below each letter of your name.

   c. Birth Date - Write your section number at the top of the box marked birth date. In the first three columns, fill in the circles corresponding to your section number.

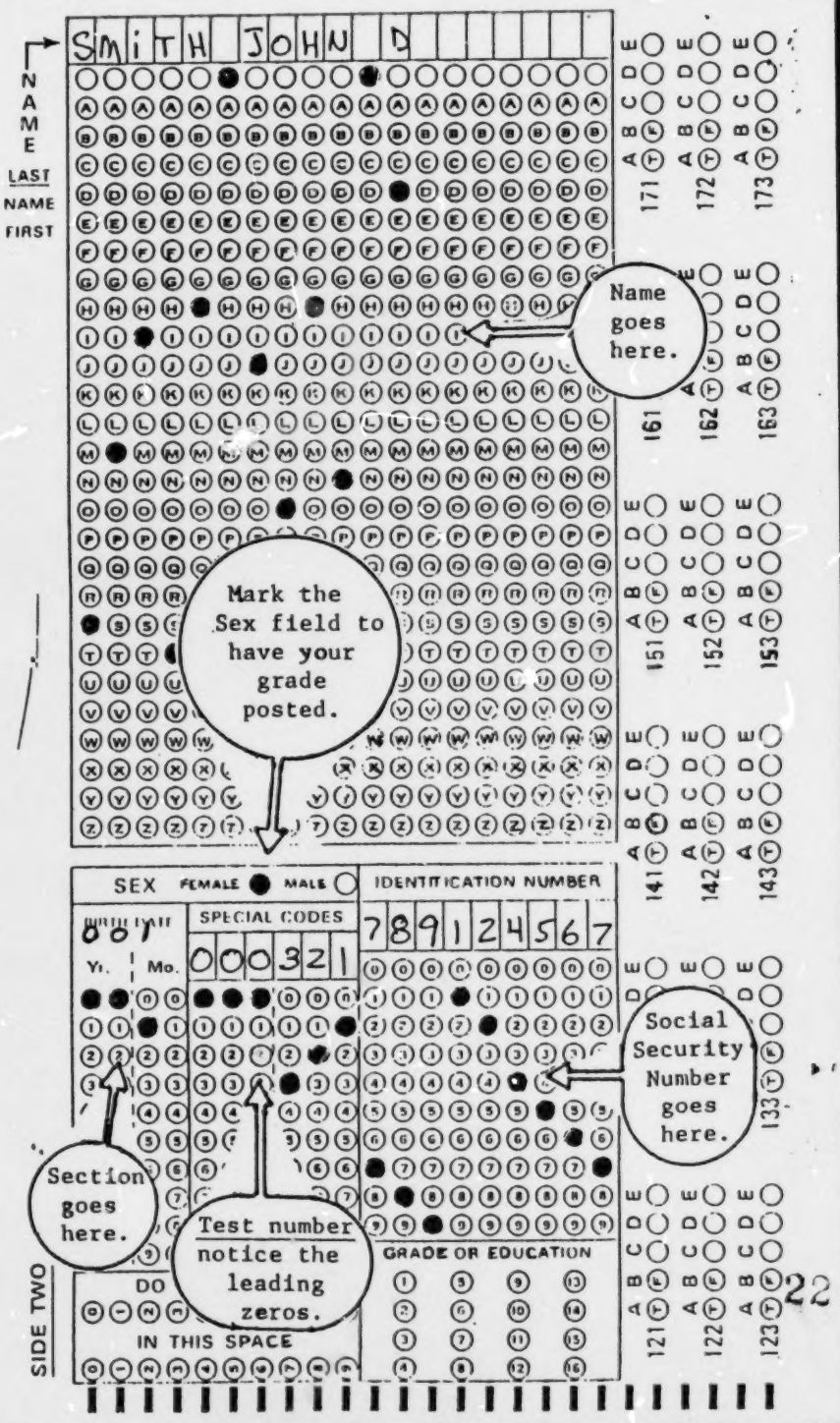
   d. Identification Number - Write in your Social Security Number (leave no blank spaces). Fill in the corresponding circle below each number of your Social Security Number.

   e. Sex - If you would like your grade to be posted by Social Security Number, fill in either Male or Female. If you do not want your grade to be posted do not mark this field.

   f. When you receive the exam itself, turn the answer sheet over and begin when instructed.

   g. Failure to follow all directions to the letter will cause your answer sheet to be unidentifiable, and will, therefore, give you a grade of 0.

3. At the end of the exam, turn in the exam and the answer sheet to your instructor. Make certain all the proper information on side 2 is filled out correctly.



** TEST INPUT FORM ***

Master Test Number _____

Requested By _____

Course _____Section_____

Bldg/Room_____

A computer tape backup of your scored tests may be made for transport to another system, for statistics run by another source, or for other reasons the user may have.

** The User requesting the tape backup must supply the tape.

Tape Backup (Yes/No) _____

Instructions: Make sure all answer sheets have a valid test number. Put the test input form and the answer sheets into a manila folder. Bring the test to Computer Services and give the test to the Supervisor on duty in the Computer Room. Tests received by 11:30 A.M. may be picked at 1:00 P.M. Tests received after 11:30 A.M. may be picked up after 8:00 A.M. the next day. Tests may not be submitted or picked up after 4:30 P.M.

*** NOTES AND RESTRICTIONS ***

1. Tests with incorrect test numbers cannot be graded by the system.
2. All tests must be submitted in a manila folder.
3. Computer Services cannot correct invalid test numbers or damaged test sheets.
4. Tests cannot be accepted after 4:30 P.M.
5. For security, please bring all tests directly to the Computer Room.
6. Do not bring any answer keys to Computer Services.

Computer Screens

********FACULTY TEST BANK MENU********

THE FOLLOWING TASKS ARE AVAILABLE UNDER
THE COMPUTERIZED FACULTY TEST BANK SYSTEM:

1. ADD, CHANGE, OR DELETE QUESTIONS
2. BROWSE QUESTION FILE
3. SELECT QUESTIONS FOR TEST
4. COURSE AND SECTION BROWSE
5. PASSWORD INFORMATION
6. RENAME, RENUMBER OR COMBINE COURSES
7. HELP SESSIONS

==> KEY TASK NUMBER DESIRED: __

SELECT DESIRED TASK, PRESS ENTER

FACULTY TEST BANK MENU #1
ADD, CHANGE, OR DELETE QUESTIONS

COURSE: BSC 1010 SECT: 001 QUEST: 003 PW: NEW PW:

COMPLEX: 1 ANS: B GRP: 11 SER: 0 ANL: 2 USER: 00000 NAME: WALKER

Q THE 5% SALT (NACL) SOLUTION WHICH YOU ADDED TO THE ELODEA
Q CELLS WAS:

A ACTIVELY TRANSPORTED INTO THE CELLS
B HYPERTONIC TO THE CELLS
C HYPOTONIC TO THE CELLS
D ISOTONIC TO THE CELLS

MAINT. COMPLETE

FACULTY TEST BANK MENU #2
BROWSE QUESTION FILE

COURSE: BSC 1010 SECTION: 001 QUESTION: 003 PASSWORD:

12 1 0 1 00000 WALKER 0000

002) WHICH OF THE FOLLOWING GASES WAS PROBABLY NOT A PART OF THE PRIMITIVE EARTH'S ATMOSPHERE:

A. CH4
B. H2
C. H2O
D. NH3
*E. O2

11 1 0 2 00000 WALKER 0000

003) THE 5% SALT (NACL) SOLUTION WHICH YOU ADDED TO THE ELODEA CELLS WAS:

A. ACTIVELY TRANSPORTED INTO THE CELLS
*B. HYPERTONIC TO THE CELLS
C. HYPOTONIC TO THE CELLS
D. ISOTONIC TO THE CELLS

FACULTY TEST BANK MENU #3
SELECT QUESTIONS FOR TEST

COURSE: BSC 1010 SECT: 001 PASSWORD:

PRINT DATE: 101083 COVER QUESTION:

NAME: COMMON FINAL ROOM: B200 EXT: 249

NUMBER OF TEST FORMATS: 03

REARRANGE QUESTIONS Y OR REARRANGE ANSWERS N

RANDOM QUESTION SELECTION: (REFER TO HELP SESSION FOR INSTRUCTIONS) SEED

SELECTION BY QUESTION NUMBER:

003 005 006 007 009 --- --- --- --- --- --- --- --- --- --- --- --- --- ---

--- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

--- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

--- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

FACULTY TEST BANK MENU #3
SELECT QUESTIONS FOR TEST

COURSE: BSC 1010 SECT: 001 PASSWORD:

PRINT DATE: 101083 COVER QUESTION:

NAME: COMMON FINAL ROOM: B200 EXT: 249

NUMBER OF TEST FORMATS: 00

REARRANGE QUESTIONS N OR REARRANGE ANSWERS N

RANDOM QUESTION SELECTION: (REFER TO HELP SESSION FOR INSTRUCTIONS) SEED

SELECTION BY QUESTION NUMBER:
ALL
--- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
--- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
--- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
--- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

FACULTY TEST BANK MENU #4
COURSE AND SECTION BROWSE

COURSE	SECTION	QUESTION COUNT
BSC1010	001	474
COP2394	001	253
ISC1000	001	180
PSC2121C	001	210
SSI1010	001	92
SSI1010	002	254
WOH2022	001	221

BROWSE CODE. . .
END = "E"

END OF FILE, KEY BROWSE CODE OR NEW COURSE

FACULTY TEST BANK MENU #5
PASSWORD INFORMATION

PASSWORD INFORMATION

CONTACT DEAN FOR INSTRUCTION (EXT. 249)

FACULTY TEST BANK MENU #6
RENAME, RENUMBER OR COMBINE COURSES

FACULTY TEST
COURSE AND SECTION
CHANGE MAINTENANCE

COURSE SECTION PASSWORD

NEW COURSE NEW SECTION

PLEASE KEY:

A - TO RENAME A COURSE AND SECTION

B - TO COMBINE TWO SECTIONS

C - TO RENUMBER A COURSE AND SECTION

FACULTY TEST BANK MENU #7
HELP SESSIONS

COURSE: HELP SECT: 001 PW: NEW PW:

FACULTY TEST HELP SESSIONS

HELP 001-003	GENERAL OPERATOR INFORMATION
HELP 008-015	ADD, CHANGE, OR DELETE QUESTIONS
HELP 021-025	SELECT QUESTIONS FOR A TEST
HELP 035	PASSWORD INQUIRY
HELP 045	DISPLAY COURSES INCLUDED IN THE SYSTEM
HELP 055	WHAT SCREENS ARE AVAILABLE
HELP 065	HOW TO MODIFY A HELP SESSION
HELP 075-078	RENUMBER TEST QUESTIONS, RENAME A COURSE AND SECTION, COMBINE A COURSE AND SECTION

TO GAIN ACCESS TO THESE HELP SESSIONS PRESS ENTER TWICE AND THEN KEY HELP IN THE COURSE FIELD AND THE HELP NUMBER IN THE SECTION FIELD.

SANTE FE COMMUNITY COLLEGE

PAGE. 1 FT-1515 OPTICAL SCANNER TEST TAPE ERROR REPORT 09/20/83

COURSE..MTB1313 SECTION..001 REQUESTED BY..WHEELER TEST BATCH

MASTER NO.	VERSION NO.	SHEET NO.	SOC. SEC.	NAME	SECTION

** NUMBER OF TESTS COUNTED = 151 **

** NO TEST NUMBER ERRORS FOUND **

** END OF REPORT **

Hard Copy - analysis of Exams

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SANTE FE COMMUNITY COLLEGE
CROSS REFERENCE RESPONSE LIST

MASTER TEST NO.. 1301 COURSE..MTB1313 SECTION..1 REQUESTED BY..WHEELER TEST BATCH

NAME	SOC. SEC.	RAW/% SCORE	0 1 2 3 4 5 6 7 8 1234567890123456789012345678901234567890123456789012345678901234567890123456789012345678 CDABBECBCAACEADDACBAEDBDBBDBCDCDABDAAADCDCDDBAADBDDDBDCCECBBBEADAAEBBC
ADAMS MARK A	427-31-3819	61 87.1	.....D...E..D.....C...C.....D..A.....C..A.....
ALLEN JERIANNE	263-89-9681	55 78.6	...E.....C..C..C.....C.AE.DE.....E...A.....AC.AA..
BEAM CHARLENE	264-39-0309	54 77.1	A..C.....AB..E.....ECEA..E.....E...EA....E.....EA.
CAMPBELL EWAN	910-01-1964	66 94.3	.....B.....C.....E.....A.....
CARR CYNTHIA	264-75-7779	53 75.7	.....B.A.E.ABB.....E.C.....CC.AC.....A.CBAA.
CASE MARYLYNN	263-53-2603	47 67.1	...E.....C.EADC...C....A....BCAB.C...B.....A.....EEAB..B.....E..AA..
CASON ELNORA	263-37-2236	30 42.9	.#B#D....C#.##E..A#..EC.E.EE.#..EC#.....AA#E..C#BE.##ADBE#....EBBAE..
CHAMBERS SUSAN	267-87-7358	26 37.1	.A.DE....EEA.DE.DAECAEEEAAEA.CDC.A.D...B.BBCA.EC..AEAAED.E.....ABDA.A.
COOK MARSHA J	264-13-8091	48 68.6	..E...BC.EDE.EC...E....A...E.C.E.AA.....C.E....A.....D.C.A.C.
CORRELL MELANI	237-19-3249	49 70.0	...A.....BD.C..B.....CD.....A.CDC....EB.....A.AEA.....A.B..B.A..
CROUCH TOM	399-58-8799	65 92.9	...E.....BD.....E..A.....
DAVIS BRIAN	267-63-9475	19 27.1	BEBAE.EEBEEA.EE.EAEE.EAEA.EEBBDCEC..E.E...EAE..EEE.EEAEEBBA..D.C.EAA.E
DION ERIC	196-50-4745	37 52.9	....E....DEED...D.C...DADC.E.C...AC.E.AD..CAE.CBDE.AABE.BEA.....A...
HI SON WOODROW	263-17-3756	34 48.6	A.CC.....E.EDC.B.AEEAE.EEC.EA.BCED.CC.....AAE...A..EAE.E.....A.CA.C.
HILL JOHN	265-04-9627	41 58.6	.....E..B.EA..DCD#.BE....B...A..B....ACAE.CAA.E.A.D.A.C.....CBCA.
HOLLOWAY WILLI	262-58-8373	40 57.1	.A.....E.AACEB..D.CEE...BCB..C.A.....A.C.E...C.AE..A.C.A.CBB.BC..
KAPLAN JANET	267-27-9585	61 87.1	.....D.....E....A...B.....A.C....CA.....A..
KEPLER KIM A	267-53-8471	33 47.1	.A.....D.ACB....D.BEACDCBD...C.AB.C..DC.C.EDDC....AB....CDC.CAB.BCAB
LEVY LEIGH	124-38-2263	53 75.7	..B.....E...E..D..C..E....EE..C.A..CB.....A...C...AA.....A.....
MOYERS BLAIR	266-69-0311	41 58.6	..DCEC...E.ED.C.BED....B..E.E...EA..E.....C.EE..BA.C.EBDC..D.....E.

$ - EVERYONE GIVEN CREDIT FOR THE QUESTION.
@ - NO ONE GIVEN CREDIT FOR THE QUESTION.
X - MORE THAN ONE ANSWER FOR THE QUESTION.
- QUESTION WAS NOT ANSWERED BY STUDENT.
* - QUESTION WAS ANSWERED TWICE BY STUDENT.

PAGE. ' 1 FT-1517

SANTE FE COMMUNITY COLLEGE
CROSS REFERENCE RESPONSE LIST

MASTER TEST NO.. 1301 COURSE..MTB1313 SECTION..1 REQUESTED BY..WHEELER TEST BATCH

NAME	SOC. SEC.	RAW/% SCORE	0 1 2 3 4 5 6 7 8 1234567890123456789012345678901234567890123456789012345678901234567890123456789012345678 CDABBECBCAACEADDACBAEDBDBBDBCDCDABDAAADCDCDDBAADBDDDBDCCECBBBEADAAEBBC
ONEAL ZENO	263-45-8717	44 62.9	AA..A....E..CE.....E..C.B.CA.....AD..EE..EAA.BBAC...DA.E.C..
PITTMAN PAULIN	265-40-8076	43 61.4	A.DC.....EE.CBAC.DA...E.EC.#B..B.DE.....A.A...E.....AC...E.....#.A.
ROLAND ALMETHA	261-55-0438	43 61.4	....E.....EE.....C.....EBC..C.ECAD....A.EC.A..AEEBBE.A...AC.AA..
SAVAGE GLYNECE	266-89-8157	61 87.1	.....B.A.D.....E....BC.....D.....A.....A...
SWIFT SANDRA L	267-17-9317	51 72.9	.B.A.....D...BEB.EAD...B...E.B...AE.....A.EA.....A.E.
TENCIC DEAN	068-62-8461	51 72.9	...CE....E..DE.B.....BAB.....E....A....A..EAAA..E...D....B...
THOMAS KAREN	264-39-2339	48 68.6	BA.D.....E..B....A.BBA.EA.....BE.C.DE..E.....AAB.....A.E.
TOMLINSON VICK	453-45-1762	31 44.3	EADEA.....E.BE..BEBDEC...AEEEBE.C...E....A.E...A.EEE..E..A.CDCEDCDCC.
VAZQUEZ GARY	261-88-9944	40 57.1	D.....E..CBABD..BBABC.CB...EBCB.CC.....AAD....EE....E.BA.....CA...
WHITTEN AMANDA	262-85-8076	51 72.9	A..E.....E..B.....BCD....E..#.EBE....A.....A..EB.....CEB
WRIGHT JAMES	263-61-7438	40 57.1	.C..E....E.E.EE...EEAE.E.EED.A..EA.....C.E.EAD.A.A..BB.A....B..AA..

** END OF REPORT **

$ - EVERYONE GIVEN CREDIT FOR THE QUESTION.
@ - NO ONE GIVEN CREDIT FOR THE QUESTION.
X - MORE THAN ONE ANSWER FOR THE QUESTION.
- QUESTION WAS NOT ANSWERED BY STUDENT.
* - QUESTION WAS ANSWERED TWICE BY STUDENT.

SANTE FE COMMUNITY COLLEGE
AUTHORIZED TEST SCORES BY SOCIAL SECURITY NO.

MASTER TEST NO.. 1301 COURSE..MTB1313 SECTION..1 WHEELER TEST BATCH

SOC. SEC.	PERCENTAGE SCORE	RAW SCORE	TEST VERSION
068-62-8461	72.86	51	1305
124-38-2263	75.71	53	1302
196-50-4745	52.86	37	1305
237-19-3249	70.00	49	1305
261-55-0438	61.43	43	1305
261-88-9944	57.14	40	1303
262-58-8373	57.14	40	1302
262-85-8076	72.86	51	1304
263-17-3756	48.57	34	1304
263-37-2236	42.86	30	1302
263-45-8717	62.86	44	1302
263-53-2603	67.14	47	1302
263-61-7438	57.14	40	1301
263-89-9681	78.57	55	1303
264-13-8091	68.57	48	1303
264-39-0309	77.14	54	1304
264-39-2339	68.57	48	1304
264-75-7779	75.71	53	1301
265-04-9627	58.57	41	1304
266-69-0311	58.57	41	1303
266-89-8157	87.14	61	1303
267-17-9317	72.86	51	1303
267-27-9585	87.14	61	1302
267-53-8471	47.14	33	1302
267-63-9475	27.14	19	1305
267-87-7358	37.14	26	1304
399-58-8799	92.86	65	1301
427-31-3819	87.14	61	1303
453-45-1762	44.29	31	1302
910-01-1964	94.29	66	1301

** TOTAL NUMBER OF STUDENTS POSTED..... 30
** TOTAL NUMBER OF STUDENTS NOT POSTED. 1
** TOTAL NUMBER OF TESTS SCORED..... 31

** END OF REPORT **

PAGE.. 1 SANTE FE COMMUNITY COLLEGE 09/20/83
FREQUENCY DISTRIBUTION

MASTER TEST NO.. 1301 COURSE..MTB1313 SECTION..1 WHEELER TEST BATCH

PERCENTAGE SCORE	RAW SCORE	FREQUENCY	CUMULATIVE FREQUENCY
94.29	66	1	1
92.86	65	1	2
87.14	61	3	5
78.57	55	1	6
77.14	54	1	7
75.71	53	2	9
72.86	51	3	12
70.00	49	1	13
68.57	48	2	15
67.14	47	1	16
62.86	44	1	17
61.43	43	2	19
58.57	41	2	21
57.14	40	3	24
52.86	37	1	25
48.57	34	1	26
47.14	33	1	27
44.29	31	1	28
42.86	30	1	29
37.14	26	1	30
27.14	19	1	31

** END OF REPORT **

PAGE.. 1 FT-1519 SANTE FE COMMUNITY COLLEGE
TEST ANALYSIS REPORT

MASTER TEST NUMBER.. 1301 COURSE..MTB1313 SECTION..001 REQUESTED BY..WHEELER TEST BATCH

NUMBER OF STUDENTS TAKING TEST.	151.00
TOTAL NUMBER OF ITEMS ON EXAM..	70.00
RANGE OF SCORES.....HIGH.....	69.00
.....LOW.....	19.00
HIGHEST POSSIBLE SCORE.....	70.00
MEAN (AVERAGE) RAW SCORE.....	43.21
MEDIAN (MIDDLE) RAW SCORE.....	43.00
MODE (MOST FREQUENT) RAW SCORE.	41.00
STANDARD DEVIATION (RAW SCORE).	11.79
STANDARD ERROR OF MEASUREMENT..	3.54
KUDER-RICHARDSON 20 CORRELATION	0.91
NUMBER USED FOR DISC INDEX.....	41.00

SANTE FE COMMUNITY COLLEGE
TEST ANALYSIS REPORT

MASTER TEST NUMBER.. 1301 COURSE..MTB1313 SECTION..001 REQUESTED BY..WHEELER TEST BATCH

** FREQUENCY DISTRIBUTION OF SCORES:

RAW SCORE	PERCENT SCORE	FREQUENCY	Z SCORE	PERCENTILE RANK	NUMERICAL RANK
69	98.57	2	2.19	0.66	2
68	97.14	1	2.10	1.65	3
66	94.29	1	1.93	2.31	4
65	92.86	1	1.85	2.98	5
63	90.00	1	1.68	3.64	6
61	87.14	6	1.51	5.96	12
60	85.71	2	1.42	8.60	14
59	84.29	1	1.34	9.60	15
58	82.86	3	1.25	10.92	18
57	81.43	3	1.17	12.91	21
56	80.00	2	1.08	14.56	23
55	78.57	7	1.00	17.54	30
54	77.14	3	0.92	20.86	33
53	75.71	6	0.83	23.84	39
52	74.29	2	0.75	26.49	41
51	72.86	7	0.66	29.47	48
50	71.43	1	0.58	32.11	49
49	70.00	2	0.49	33.11	51
48	68.57	3	0.41	34.76	54
47	67.14	4	0.32	37.08	58
46	65.71	4	0.24	39.73	62
45	64.29	2	0.15	41.72	64
44	62.86	6	0.07	44.37	70
43	61.43	6	- 0.02	48.34	76
42	60.00	6	- 0.10	52.31	82
41	58.57	8	- 0.19	56.95	90
40	57.14	6	- 0.27	61.58	96
39	55.71	5	- 0.36	65.23	101
38	54.29	6	- 0.44	68.87	107
37	52.86	2	- 0.53	71.52	109
36	51.43	3	- 0.61	73.17	112
35	50.00	3	- 0.70	75.16	115
34	48.57	4	- 0.78	77.48	119
33	47.14	5	- 0.87	80.46	124
32	45.71	2	- 0.95	82.78	126
31	44.39	1	- 1.04	83.77	127
30	42.86	2	- 1.12	84.76	129
29	41.43	3	- 1.21	86.42	132
28	40.00	2	- 1.29	88.07	134
26	37.14	4	- 1.46	90.06	138
25	35.71	4	- 1.54	92.71	142
24	34.29	2	- 1.63	94.70	144
22	31.43	1	- 1.80	95.69	145
21	30.00	1	- 1.88	96.35	146
20	28.57	2	- 1.97	97.35	148
19	27.14	3	- 2.05	99.00	151

SANTE FE COMMUNITY COLLEGE
TEST ANALYSIS REPORT

09/20/83

MASTER TEST NUMBER.. 1301 COURSE..MTB1313 SECTION..001 REQUESTED BY..WHEELER TEST BATCH

** ITEM ANALYSIS - BY TOTALS:

ITEM NUMBER	FTB NUMBER	CORR RESP	ITEM RESPONSES A	B	C	D	E	OTHER	ITEM DIFFICULTY	ITEM DISCRIMINATION	POINT BISERIAL CORRELATION
1	1	C	17	4	118	11	1	0	0.78	0.32	0.31
2	2	D	51	6	2	85	6	1	0.56	0.49	0.37
3	3	A	99	13	8	22	7	2	0.66	0.46	0.35
4	4	B	34	72	13	16	14	2	0.48	0.29	0.18
5	5	B	20	91	6	5	29	0	0.60	0.59	0.44
6	6	E	10	12	1	1	127	0	0.84	0.41	0.39
7	7	C	3	8	134	4	2	0	0.89	0.29	0.32
8	8	B	2	131	16	0	2	0	0.87	0.41	0.41
9	9	C	4	5	138	0	4	0	0.91	0.29	0.33
10	10	A	38	11	23	14	65	0	0.25	0.56	0.46
11	11	A	92	12	11	9	25	2	0.61	0.76	0.56
12	12	C	32	12	72	7	28	0	0.48	0.59	0.49
13	13	E	10	36	26	38	39	2	0.26	0.32	0.30
14	14	A	49	17	21	27	34	3	0.32	0.41	0.32
15	15	D	23	10	14	74	29	1	0.49	0.73	0.51
16	16	D	15	16	12	102	5	1	0.68	0.39	0.29
17	17	A	104	15	6	13	12	1	0.69	0.37	0.34
18	18	C	26	19	74	5	26	1	0.49	0.68	0.49
19	19	B	16	68	17	19	30	1	0.45	0.61	0.47
20	20	A	86	16	24	8	16	1	0.57	0.59	0.48
21	21	E	11	19	14	10	97	0	0.64	0.59	0.48
22	22	D	17	6	15	86	26	1	0.57	0.68	0.53
23	23	B	13	88	9	19	21	1	0.58	0.61	0.50
24	24	D	8	18	12	89	24	0	0.59	0.66	0.49
25	25	B	18	94	10	9	19	1	0.62	0.59	0.49
26	26	B	9	97	18	12	15	0	0.64	0.46	0.33
27	27	D	4	9	6	100	32	0	0.66	0.61	0.52
28	28	B	19	73	19	9	29	2	0.48	0.66	0.48
29	29	C	13	21	84	12	21	0	0.56	0.41	0.30
30	30	D	19	16	48	55	11	2	0.36	0.49	0.40
31	31	C	11	34	88	11	7	0	0.58	0.29	0.21
32	32	D	7	14	50	68	12	0	0.45	0.49	0.39
33	33	A	103	0	11	4	33	0	0.68	0.27	0.23
34	34	B	50	31	52	14	3	1	0.21	0.51	0.53
35	35	D	15	3	7	104	20	2	0.69	0.32	0.31
36	36	A	130	6	7	3	5	0	0.86	0.17	0.21
37	37	A	106	8	14	9	14	0	0.70	0.27	0.25
38	38	A	99	18	6	5	23	0	0.66	0.20	0.14
39	39	D	13	0	0	118	20	0	0.78	0.29	0.26
40	40	C	8	16	110	11	6	0	0.73	0.39	0.35
41	41	D	8	1	3	134	5	0	0.89	0.22	0.24
42	42	C	10	5	129	3	4	0	0.85	0.37	0.38
43	43	D	45	5	13	85	3	0	0.56	0.56	0.41
44	44	D	29	4	10	104	3	1	0.69	0.49	0.43
45	45	B	12	79	19	16	24	1	0.52	0.76	0.58
46	46	A	129	0	13	7	2	0	0.85	0.20	0.25
47	47	A	111	8	7	9	16	0	0.74	0.49	0.46
48	48	A	18	2	31	79	20	1	0.52	0.44	0.39
49	49	B	9	106	10	11	13	2	0.70	0.39	0.35
50	50	D	18	6	3	94	30	0	0.62	0.32	0.27
51	51	D	17	3	5	100	26	0	0.66	0.22	0.14
52	52	D	34	3	7	54	53	0	0.36	0.32	0.25
53	53	B	83	43	3	1	20	1	0.28	0.56	0.45
54	54	D	55	11	19	54	11	1	0.36	0.39	0.29
55	55	C	14	2	117	4	14	0	0.77	0.44	0.39

1 = EVERYONE GIVEN CREDIT FOR QUESTION
2 = NO CREDIT GIVEN FOR QUESTION

PAGE.. 4 FT-1519 SANTE FE COMMUNITY COLLEGE 09/20/83
TEST ANALYSIS REPORT

MASTER TEST NUMBER.. 1301 COURSE..MTB1313 SECTION..001 REQUESTED BY..WHEELER TEST BATCH

** ITEM ANALYSIS - BY TOTALS:

ITEM NUMBER	FTB NUMBER	CORR RESP	ITEM RESPONSES A	B	C	D	E	OTHER	ITEM DIFFICULTY	ITEM DISCRIMINATION	POINT BISERIAL CORRELATION
56	56	C	14	18	84	6	29	0	0.36	0.51	0.38
57	57	E	31	49	5	0	65	1	0.43	0.41	0.38
58	58	C	10	12	87	8	33	1	0.58	0.46	0.35
59	59	B	32	98	15	1	4	1	0.65	0.39	0.37
60	60	B	11	135	1	2	1	1	0.89	0.02	0.02
61	61	B	8	134	9	0	0	0	0.89	0.15	0.17
62	62	E	6	2	3	14	126	0	0.83	0.41	0.44
63	63	A	117	10	11	9	4	0	0.77	0.44	0.36
64	64	D	34	5	9	86	17	0	0.57	0.54	0.43
65	65	A	109	12	14	5	10	1	0.72	0.44	0.37
66	66	A	112	14	11	7	7	0	0.74	0.44	0.41
67	67	E	53	22	3	7	65	1	0.43	0.56	0.45
68	68	B	41	72	26	3	8	1	0.48	0.41	0.32
69	69	B	25	73	29	7	17	0	0.48	0.46	0.34
70	70	C	8	10	131	1	1	0	0.87	0.27	0.30

$ = EVERYONE GIVEN CREDIT FOR QUESTION
@ = NO CREDIT GIVEN FOR QUESTION

PAGE.. 5. FT-1519

SANTE FE COMMUNITY COLLEGE
TEST ANALYSIS REPORT

MASTER TEST NUMBER.. 1301 COURSE..MTB1313 SECTION..001 REQUESTED BY..WHEELER TEST BATCH

** ITEM ANALYSIS - BY PERCENTAGES:

ITEM NUMBER	FTB NUMBER	CORR RESP	ITEM RESPONSES A	B	C	D	E	OTHER	ITEM DIFFICULTY	ITEM DISCRIMINATION
1	1	C	11	3	78	7	1	0	0.52	0.20
2	2	D	34	4	1	56	4	1	0.37	0.32
3	3	A	66	9	5	15	5	1	0.44	0.32
4	4	B	23	48	9	11	9	1	0.32	0.20
5	5	B	13	60	4	3	19	0	0.40	0.39
6	6	E	7	8	1	1	84	0	0.56	0.27
7	7	C	2	5	89	3	1	0	0.59	0.20
8	8	B	1	87	11	0	1	0	0.58	0.27
9	9	C	3	3	91	0	3	0	0.60	0.20
10	10	A	25	7	15	9	43	0	0.17	0.37
11	11	A	61	8	7	6	17	1	0.40	0.49
12	12	C	21	8	48	5	19	0	0.32	0.39
13	13	E	7	24	17	25	26	1	0.17	0.20
14	14	A	32	11	14	18	23	2	0.21	0.27
15	15	D	15	7	9	49	19	1	0.32	0.49
16	16	D	10	11	8	68	3	1	0.45	0.24
17	17	A	69	10	4	9	8	1	0.46	0.24
18	18	C	17	13	49	3	17	1	0.32	0.44
19	19	B	11	45	11	13	20	1	0.30	0.39
20	20	A	57	11	16	5	11	1	0.38	0.39
21	21	E	7	13	9	7	64	0	0.42	0.39
22	22	D	11	4	10	57	17	1	0.38	0.46
23	23	B	9	58	6	13	14	1	0.38	0.41
24	24	D	5	12	8	59	16	0	0.39	0.44
25	25	B	12	62	7	6	13	1	0.41	0.39
26	26	B	6	64	12	8	10	0	0.42	0.29
27	27	D	3	6	4	66	21	0	0.44	0.39
28	28	B	13	48	13	6	19	1	0.32	0.44
29	29	C	9	14	56	8	14	0	0.37	0.29
30	30	D	13	11	32	36	7	1	0.24	0.32
31	31	C	7	23	58	7	5	0	0.38	0.20
32	32	D	5	9	33	45	8	0	0.30	0.34
33	33	A	68	0	7	3	22	0	0.45	0.17
34	34	B	33	21	34	9	2	1	0.14	0.34
35	35	D	10	2	5	69	13	1	0.46	0.20
36	36	A	86	4	5	2	3	0	0.57	0.12
37	37	A	70	5	9	6	9	0	0.46	0.17
38	38	A	66	12	4	3	15	0	0.44	0.12
39	39	D	9	0	0	78	13	0	0.52	0.17
40	40	C	5	11	73	7	4	0	0.48	0.27
41	41	D	5	1	2	89	3	0	0.52	0.12
42	42	C	7	3	85	2	3	0	0.56	0.24
43	43	D	30	3	9	56	2	0	0.37	0.37
44	44	D	19	3	7	69	2	1	0.46	0.32
45	45	B	8	52	13	11	16	1	0.34	0.49
46	46	A	85	0	3	5	1	0	0.56	0.12
47	47	A	74	5	5	6	11	0	0.49	0.32
48	48	D	12	1	21	52	13	1	0.34	0.29
49	49	B	6	70	7	7	9	1	0.46	0.24
50	50	D	12	4	2	62	20	0	0.41	0.22
51	51	D	11	2	3	66	17	0	0.44	0.15
52	52	D	53	2	5	36	35	0	0.24	0.22
53	53	B	55	28	2	1	13	1	0.19	0.37
54	54	D	36	7	13	36	7	1	0.24	0.24
55	55	C	9	1	77	3	9	0	0.51	0.29

1 = EVERYONE GIVEN CREDIT FOR QUESTION
2 = NO CREDIT GIVEN FOR QUESTION

SANTE FE COMMUNITY COLLEGE
TEST ANALYSIS REPORT

TEST NUMBER.. 1301 COURSE..MTB1313 SECTION..001 REQUESTED BY..WHEELER TEST BATCH

ANALYSIS - PERCENTAGES: ITEM NUMBER	FTB NUMBER	CORR RESP	ITEM RESPONSES A	B	C	D	E	OTHER	ITEM DIFFICULTY	ITEM DISCRIMINATION
56	56	C	9	12	56	4	19	0	0.37	0.34
57	57	E	21	32	3	0	43	1	0.28	0.27
58	58	C	7	8	58	5	22	1	0.38	0.29
59	59	B	21	65	10	1	3	1	0.43	0.27
60	60	B	7	89	1	1	1	1	0.59	0.02
61	61	B	5	89	6	0	0	0	0.59	0.10
62	62	E	4	1	2	9	83	0	0.55	0.27
63	63	A	77	7	7	6	3	0	0.51	0.29
64	64	D	23	3	6	57	11	0	0.38	0.37
65	65	A	72	8	9	3	7	1	0.48	0.29
66	66	A	74	9	7	5	5	0	0.49	0.29
67	67	E	35	15	2	5	43	1	0.28	0.37
68	68	B	27	48	17	2	5	1	0.32	0.29
69	69	B	17	48	19	5	11	0	0.32	0.32
70	70	C	5	7	87	1	1	0	0.58	0.17

$ - EVERYONE GIVEN CREDIT FOR QUESTION
@ - NO CREDIT GIVEN FOR QUESTION

SANTE FE COMMUNITY COLLEGE
TEST ANALYSIS REPORT

MASTER TEST NUMBER.. 1301 COURSE..MTB1313 SECTION..001 REQUESTED BY..WHEELER

** STUDENT SCORES BY NAME:

NAME	SOC. SEC.	RAW SCORE	PERCENTAGE SCORE	Z SCORE	TEST VERSION
ADAMS DEBORAH L	264-39-0714	41	58.57	-0.19	1302
ADAMS KELLY ANN	262-41-2609	39	55.71	-0.36	1305
ADAMS MARK A	427-31-3819	61	87.14	1.51	1303
ADAMS MELISSA	204-52-1464	42	60.00	-0.10	1302
ALBRITTON SHARON	265-79-8499	44	62.86	0.07	1303
ALEX CHRISTINA	263-51-3006	40	57.14	-0.27	1305
ALFIERI D MARK	521-68-7216	42	60.00	-0.10	1304
ALLEN JERIANNE	263-89-9681	55	78.57	1.00	1303
ANTHONY CHRIS	266-83-9732	48	68.57	0.41	1301
ARCHER JOE	261-65-9854	29	41.43	-1.21	1305
AUSTIN ROBERT	261-79-3019	49	70.00	0.49	1304
BAINS LARRY	264-89-6572	24	34.29	-1.63	1303
BANISTER DEBRA	264-25-8575	53	75.71	0.83	1303
BARDES RUTHANN	374-68-8957	42	60.00	-0.10	1302
BATES BECKY	261-61-0809	56	80.00	1.08	1304
BEAM CHARLENE	264-39-0309	54	77.14	0.92	1304
BEAM CINDY	167-48-6796	63	90.00	1.68	1301
BENNETT ELIZABETH A	266-19-0877	58	82.86	1.25	1304
BLACK JULIA ANN	267-67-4109	39	55.71	-0.36	1305
BRESEE BETTY ANN	053-32-3222	59	84.29	1.34	1303
BROWN LAURIE	595-01-1737	60	85.71	1.42	1301
BURKE POLLY	267-51-2130	39	55.71	-0.36	1303
BURLEY ELIZABETH	366-76-9138	46	65.71	0.24	1302
CAMPBELL EWAN	910-01-1964	66	94.29	1.93	1301
CARLETON DO ALD	266-80-2629	52	74.29	0.75	1302
CARR CYNTHIA	264-75-7779	53	75.71	0.83	1301
CASE MARYLYNN	263-53-2603	47	67.14	0.32	1302
CASON ELNORA	263-37-2236	30	42.86	-1.12	1302
CHAMBERS SUSAN	267-87-7358	26	37.14	-1.46	1304
CLYA TT LNIER	261-33-9445	69	98.57	2.19	1303
CONNOLLY LISA	071-36-1294	44	62.86	0.07	1305
COOK MARSHA J	264-13-8091	48	68.57	0.41	1303
CORRELL MELANIE	237-19-3249	49	70.00	0.49	1305
CRAPPS STEVE	263-75-8902	33	47.14	-0.87	1304
CROUCH TOM	399-58-8799	65	92.86	1.85	1301
CURTIS FRANCIS	261-61-3802	41	58.57	-0.19	1305
DAMPF SHARON	079-60-6333	36	51.43	-0.61	1305
DAMPIER LINDA	264-83-9558	32	45.71	-0.95	1302
DAVIS BRIAN	267-63-9475	19	27.14	-2.05	1305
DECKER RICHARD	140-64-7733	42	60.00	-0.10	1304
DEYOUNG WILLIAM	264-45-2727	51	72.86	0.66	1304
DION ERIC	196-50-4745	37	52.86	-0.53	1305
EVERETT ANGIE	264-71-7284	19	27.14	-2.05	1302
FARRIS RAYMOND	267-47-2387	40	57.14	-0.27	1302
FIELDS IRVIN	266-71-4249	20	28.57	-1.97	1305
FIKE TERRY	267-33-5332	35	50.00	-0.70	1301
FITELSON CINDY S	261-96-4312	51	72.86	0.66	1303
FORAKER SANDY	257-25-3995	38	54.29	-0.44	1303
FORD JENNIFER	263-77-1701	24	34.29	-1.63	1304
FOX SYLVIA	224-54-1111	53	75.71	0.83	1302
FRANCE MARY MARIE	265-87-9898	34	48.57	-0.78	1304
FREEMAN MARK	266-85-4595	38	54.29	-0.44	1305
GARLE JACQUELINE	261-76-7160	57	81.43	1.17	1302
GEBERT STEVE	060-46-0551	39	55.71	-0.36	1301
GILCHRIST PATTY	264-90-3960	36	51.43	-0.61	1302
GREENLEE TERRI	263-75-6646	33	47.14	-0.87	1303
HANBERRY RACHEL	265-39-3246	55	78.57	1.00	1304
HARTMAN SYBIL	263-97-6765	38	54.29	-0.44	1304
HEWITT JOE	265-92-7280	52	74.29	0.75	1301
HI SON WOODROW	263-17-3756	34	48.57	-0.78	1304

SANTE FE COMMUNITY COLLEGE
TEST ANALYSIS REPORT

MASTER TEST NUMBER.. 1301 COURSE..MTB1313 SECTION..001 REQUESTED BY..WHEELER TEST BATCH

** STUDENT SCORES BY NAME:

NAME	SOC. SEC.	RAW SCORE	PERCENTAGE SCORE	Z SCORE	TEST VERSION
HILL JOHN	265-04-9627	41	58.57	-0.19	1304
HILL ROBIN C	265-04-9628	35	50.00	-0.70	1305
HINGSON LYNN D	264-75-2014	33	47.14	-0.87	1302
HOLLOWAY WILLIAM M	262-58-8373	40	57.14	-0.27	1302
HOLTZENDORF RICHARD	261-71-9979	25	35.71	-1.54	1303
JACKSON GWENDOLYN	261-94-7159	38	54.29	-0.44	1302
JANS SUZANNE	264-85-1763	56	80.00	1.08	1305
JENKINS ANITA	261-77-7845	20	28.57	-1.97	1303
JOHNSON LARRY	262-47-8742	29	41.43	-1.21	1305
JONES PAMELA	263-37-1150	25	35.71	-1.54	1302
KAPLAN JANET	267-27-9585	61	87.14	1.51	1302
KENT TARYN	267-91-8032	44	62.86	0.07	1304
KEPLER KIM A	267-53-8471	33	47.14	-0.87	1302
KINDEL THOMAS H	267-69-3755	51	72.86	0.66	1301
KLEIN JILL	253-17-5377	37	52.86	-0.53	1305
KRAUSE KATHLEEN	264-45-3890	35	50.00	-0.70	1302
LAWHORNE LAWRENCE	263-65-2125	40	57.14	-0.27	1305
LEVY LEIGH	124-38-2263	53	75.71	0.83	1302
LEWIS STEVE	263-19-3981	43	61.43	-0.02	1303
LIVERS GERALD	264-81-4531	61	87.14	1.51	1301
LONGSHORE TOM	301-68-7589	61	87.14	1.51	1302
LUSIGNAN JOHN	261-23-1183	26	37.14	-1.46	1304
LUSIGNAN TIM	261-23-1164	46	65.71	0.24	1304
MASQUE MARIA	910-01-1956	43	61.43	-0.02	1304
MAYNARD LINCOLN	267-11-5275	47	67.14	0.32	1305
MCGUIRE TERESA	267-43-4304	53	75.71	0.83	1302
MILLOWAY JAMES V	259-84-3037	33	47.14	-0.87	1305
MOYERS BLAIR	266-69-0311	41	58.57	-0.19	1303
NELSON SAM M	265-75-2242	60	85.71	1.42	1303
NORITIS PAULA	264-99-2977	25	35.71	-1.54	1301
NORMAN CATHY	264-39-0805	34	48.57	-0.78	1303
NOTARAINNI LYNN	045-68-2061	47	67.14	0.32	1301
OLDEMOPPEN TIMOTHY	567-11-4860	69	98.57	2.19	1301
OLDENKAMP JOSELLE	484-74-6186	44	62.86	0.07	1303
ONEAL ZENO	263-45-8717	44	62.86	0.07	1302
OWENS THERESA	264-67-2542	34	48.57	-0.78	1301
OZGUR SEDAT	571-63-3919	42	60.00	-0.10	1302
PARKER TODD M	267-11-3369	41	58.57	-0.19	1304
PARSONS DONNA	264-13-8787	55	78.57	1.00	1305
PEARCE JANICE	263-65-1833	22	31.43	-1.80	1302
PERRY VERA	266-75-5851	43	61.43	-0.02	1303
PITTMAN PAULINE	265-40-8076	43	61.43	-0.02	1303
POWELL THOMAS	261-45-1289	51	72.86	0.66	1303
PRALL LAURA	264-86-4458	57	81.43	1.17	1302
PRATT ANDREW W	265-39-0740	55	78.57	1.00	1302
QUINTANA RENE	584-19-3458	28	40.00	-1.29	1302
RENTZ SALLY J	315-38-1944	41	58.57	-0.19	1302
RHODES EUGENE	267-82-5048	38	54.29	-0.44	1302
ROBERTS KENNETH	266-23-8619	55	78.57	1.00	1301
ROBINSON BENJAMIN	266-59-7150	26	37.14	-1.46	1303
ROBLES GARY	275-58-4992	58	82.86	1.25	1304
RODRIGUEZ LILIA	999-92-1451	38	54.29	-0.44	1302
ROLAND ALMETHA	261-55-0438	43	61.43	-0.02	1305
RYAN BARRY	006-58-0360	28	40.00	-1.29	1302
SABOL KATHY A	263-81-3761	25	35.71	-1.54	1304
SANDLIN JOSEPH	267-39-1192	57	81.43	1.17	1302
SAVAGE GLYNECE LOUI	266-89-8157	61	87.14	1.51	1303
SAVAGE GRATTAN	263-89-8572	44	62.86	0.07	1303
SEGER CAROL	266-92-2055	61	87.14	1.51	1304
SHURE LAWRENCE	331-50-7031	46	65.71	0.24	1303

SANTE FE COMMUNITY COLLEGE
TEST ANALYSIS REPORT

MASTER TEST NUMBER.. 1301 COURSE..MTB1313 SECTION..001 REQUESTED BY..WHEELER TEST BATCH

** STUDENT SCORES BY NAME:

NAME	SOC. SEC.	RAW SCORE	PERCENTAGE SCORE	Z SCORE	TEST VERSION
SIMPSON PAMELA	267-53-4846	30	42.86	-1.12	1301
SMALL GEORGE	266-53-2605	19	27.14	-2.05	1305
SMITH BURLEY	264-63-3273	43	61.43	-0.02	1303
SPEAR KATHY	265-98-9668	47	67.14	0.32	1305
SPEAR LYNDON	265-98-9567	50	71.43	0.58	1305
STOLZENBERG LISA	267-71-6506	45	64.29	0.15	1304
SWIFT SANDRA LE	267-17-9317	51	72.86	0.66	1303
TENCIC DEAN	068-62-8461	51	72.86	0.66	1305
THOMAS PATTY	264-39-2350	29	41.43	-1.21	1304
THOMAS KAREN	264-39-2339	48	68.57	0.41	1304
TOMLINSON VICKIE P	453-45-1762	31	44.29	-1.04	1302
TOOLE SUE	266-84-9271	58	82.86	1.25	1302
TRAINOR RICHARD	261-15-6176	68	97.14	2.10	1303
TRIMM JOHN	267-77-9216	36	51.43	-0.61	1302
UNDERHILL DALE	262-97-2605	54	77.14	0.92	1303
UPSHAW GREG	264-90-2839	26	37.14	-1.46	1304
VAZQUEZ GARY	261-88-9944	40	57.14	-0.27	1303
WATKINS HUGH T	266-57-8535	55	78.57	1.00	1302
WELLS DAVID	266-15-3554	55	78.57	1.00	1304
WHEELER BART	537-84-8717	42	60.00	-0.10	1303
WHITEDEBRA A	262-59-1790	21	30.00	-1.88	1303
WHITTEN AMANDA	262-85-8076	51	72.86	0.66	1304
WILLOUGHBY LAURA	261-79-4586	39	55.71	-0.36	1302
WILLS MARK	154-60-8261	45	64.29	0.15	1303
WILSON DONALD R	369-36-3919	46	65.71	0.24	1303
WOOD RONALD	261-15-0025	32	45.71	-0.95	1303
WORMSER TODD	376-46-5338	41	58.57	-0.19	1303
WRIGHT JAMES	263-61-7438	40	57.14	-0.27	1301
ZAMBRANO VERONICA	811-19-1961	41	58.57	-0.19	1303
ZURFLUH CYNTHIA	470-58-2081	54	77.14	0.92	1303
ZURFLUH LONNIE	515-46-0175	53	75.71	0.83	1303

** END OF REPORT **

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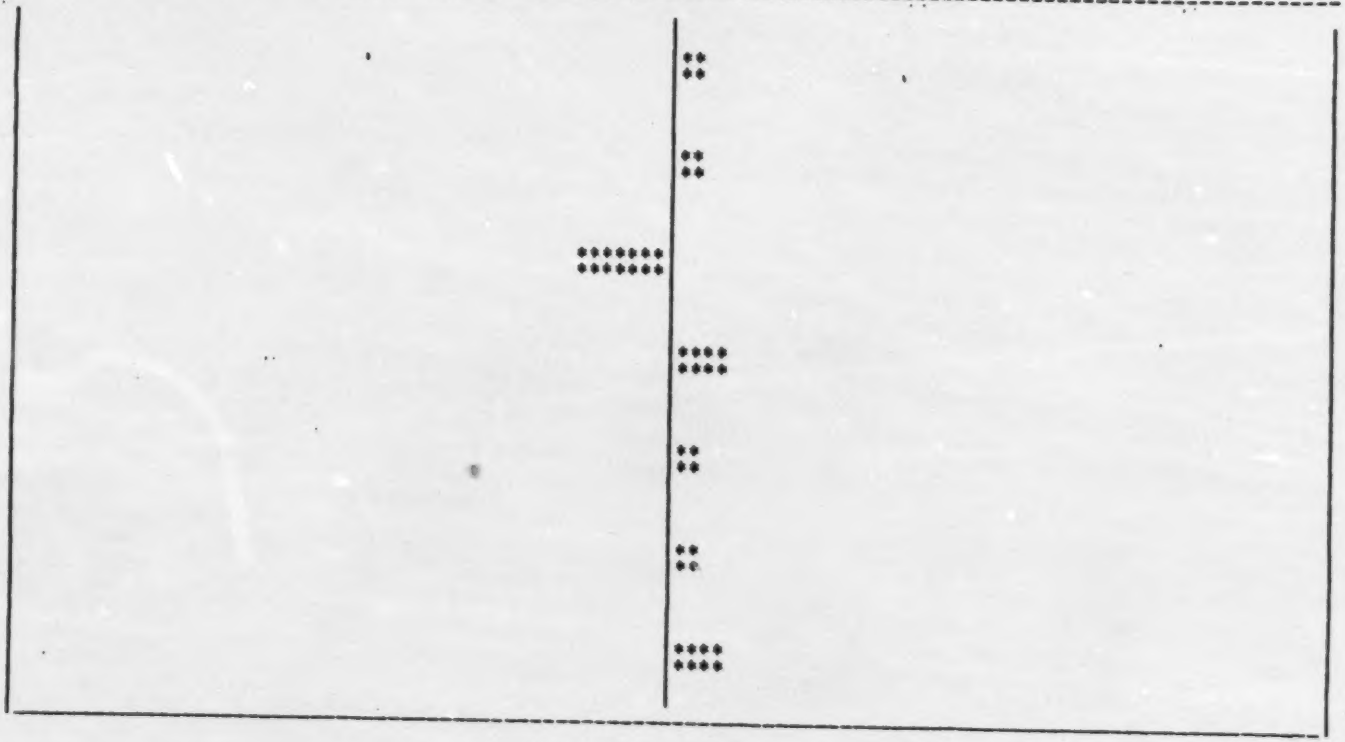
SANTE FE COMMUNITY COLLEGE
GROUP SCORE ANALYSIS BY SECTION

09/20/83

MASTER TEST NO.. 1301 COURSE..MTB1313 SECTION..2 REQUESTED BY..WHEELER TEST BATCH

GROUP	OVERALL MEAN	CLASS MEAN
1	68	70
2	50	52
3	57	50
4	63	67
5	70	72
6	55	57
7	68	72



** END OF REPORT **

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Los Angeles, California 90024

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